Amendments to the Specification:

At page 4, delete paragraph 11, beginning at line 17.

At page 4, replace paragraphs 12-17, beginning at line 19, with the following new paragraphs:

Figure [[25]] 24 shows a black and white digital printout of an infrared chemical image taken of EFA paper.

Figure [[26]] 25 is a plot of NIR response and amount of EFA added, for a paper evaluation.

Figure [[27]] 26 is a digital printout of a TEM image of an SBF sample, after cellulase-gold imaging.

Figure [[28]] 27 is a digital printout of a TEM of an EFA sample after cellulase-gold imaging.

Figure [[29]] 28 shows the results of a study to evaluate the effect of EFA on fat and moisture content of fried mushrooms.

Figure [[30]] 29 shows the results of a study to evaluate the effect of EFA on fat and moisture content of fried zucchini.

At page 44, replace paragraph 2, beginning at line 2, with the following new paragraph:

Sample A contained 1% of EFA, sample B contained 1.5% EFA, and Sample C contained 2% EFA on a total batter weight basis. Batters were mixed together until smooth and allowed to rest for 10 minutes. Onions, mushrooms, zucchini and chicken were coated with batter and deep fat fried in liquid vegetable oil at 375° F for 4 minutes. The fried products were removed from the hot oil and placed on paper towels to cool. The fried batter was then removed and analyzed for percent fat (acid hydrolysis) and percent moisture (vacuum oven). Results for mushrooms and zucchini are shown in Figures [[29]] 28 and [[30]] 29.

At page 48, replace the paragraph beginning at line 19 with the following new paragraph:

~~Figure 24, shows an infrared chemical image taken of non-EFA paper, and~~ Figure [[25]] 24 shows an infrared chemical image taken of EFA paper. The images were generated by using a chemometric technique called principal component analysis (PCA). This type of technique enhances the chemical differences found in the "principal components" of the variations in the material examined. The ~~images~~ image shown in ~~Figures 24,~~ Figure 25 [[are]] is of the third principal component of the paper image. In chemical imaging the contrast generated in the image are from chemical, rather than morphological, differences. The measurements used, and imaging analysis, were performed by ChemIcon, Inc. at Pittsburgh, PA, using that company's facilities and software, under the supervision of Cargill, Inc., the assignee of the present application.

At pages 48-49, replace the paragraph beginning at line 28 with the following new paragraph:

~~Note that the non-EFA material (Figure 24) shows very little contrasting chemical morphology. This implies a fairly homogenous chemical makeup. However, the~~ The image of the EFA added paper (Figure [[25]] 24) shows marked contrasts. That is, there are localized chemical differences across this image. In fact, on close examination of the EFA image, one can see that the chemical changes generated by the presence of the EFA material is localized or ordered to follow (or to align and define) individual paper (in this case pulp or cellulose) fiber strands. That is, the EFA is located such that it coats, or at least partially coats, various paper fibers (i.e., cellulose or pulp fibers in this instance). Since the EFA material has a significant holocellulose character, it readily interacts with the wood (cellulose) fibers. Because of its hemicellulose character, the EFA acts as "glue" in paper manufacturing. Thus, it can be concluded that the EFA additive effectively coats (or partially coats) each paper (holocellulose) fiber with a thin film of hemicellulosic "glue" and in this manner add to the overall strength of the paper.

At page 50, replace paragraph 1 with the following new paragraph:

Taking this near infrared data and using a multiple linear regression algorithm, a linear relationship was discovered using the two wavelengths. Figure [[26]] 25 shows the linear plot generated from this calculation.

At page 51, replace paragraph 2 with the following new paragraph:

In Fig. [[27]] 26, a digital image of an SBF-Corn sample evaluated by a cellulose-Corn gold affinity probe is depicted. In Fig. [[28]] 27, a digital image of an EFA-Corn sample similarly treated, is depicted. The higher density of the probe in Fig. [[28]] 27 indicates that the EFA has been modified in a manner making it more susceptible to the probe. It is theorized that this results from the material being modified to have a greater, more accessible, cellulose and helocellulose character. This is supported by the analysis in Section VIII.